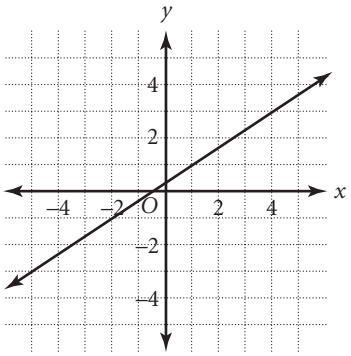
NAME _____ CLASS _____ DATE _____

Practice

2.3 Introduction to Functions

In Exercises 1–8, state whether each relation represents a function.

1.



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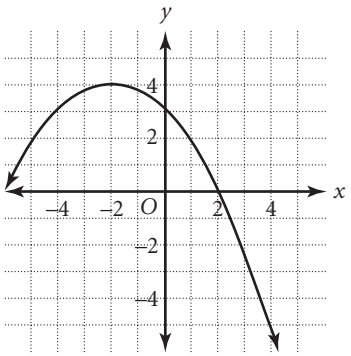
2.



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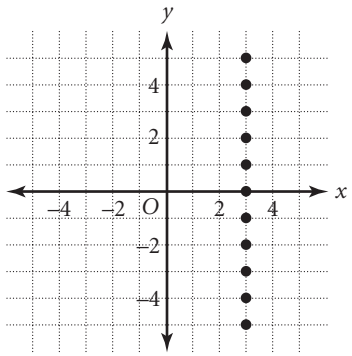
3.



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4.

x	−2	−1	0	1	2
y	8	4	0	4	8

_____

5.

x	1	2	3	4	5
y	2	3	2	3	2

_____

6.

x	2	3	2	3	2
y	1	2	3	4	5

_____

7. $\{(1, 5), (0.5, 8), (0, 3)\}$ _____

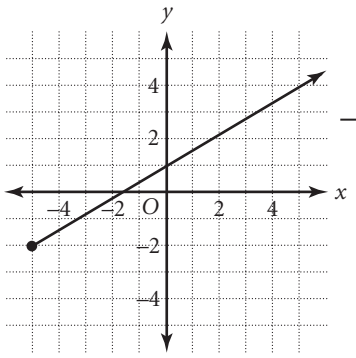
8. $\{(32, 4), (16, 7), (16, 4)\}$ _____

State the domain and range of each function.

9. $\left\{(-1, -3), (0, 1), \left(\frac{1}{2}, 3\right), \left(\frac{3}{2}, 7\right)\right\}$

_____

10.



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11. $\{(-4.5,\ 6), (3, -1.5), (6.5, -5), (12, -10.5)\}$

_____

12. $\{(-2, 12), (0, 8), (1, 9)(5, 33)\}$

_____

Evaluate each function for the given values of x.

13. $f(x) = 20x - 4$, for $x = -2$ and $x = 8$ _____

14. $f(x) = 5x^2$, for $x = -3$ and $x = 5$ _____

15. $f(x) = 12 - 3x$, for $x = 7$ and $x = -5$ _____

16. $f(x) = 3x^2 - 2$, for $x = 11$ and $x = -4$ _____

17. $f(x) = 3x - x^2$, for $x = 0.5$ and $x = 0$ _____